

## REMARKS

The remarks and arguments in the following response are numbered to correspond to the numbers used in the office action.

2. The rejection of claims 1 – 10 under 35 U.S.C. §103(a) as being unpatentable over the teachings of U.S. Patent No. 6,036,945 to Deblasi et al is respectfully traversed.

The basis for the inclusion of the phrases set forth below, in the amended claims, is as follows:

In Claim 1,

the gel being present as a colloid in which the dispersed phase of waxy solid particles has combined with the continuous phase of vegetable oil to produce a semi-solid material (see specif., pg 1, lines 18-19);

substantially free of any solvent (see specif., pg 1, lines 15-16);

having physical properties including viscosity, stability, emolliency and occlusivity similar to that of petrolatum (see specif., pg 1, lines 13 - 14 and pg 4, line 16);

Petrolatum is a well known material, defined in numerous texts and dictionaries, including the Merck Index where it is defined as follows:

“7262. Petrolatum. Petroleum jelly; paraffin jelly; vasoliment, Cosmoline; Saxoline: Stanolene: Vaseline. Purified mixture of semisolid hydrocarbons, chiefly of the methane series of the general formula  $C_nH_{2n-2}$ . Actually, petrolatum is a colloidal system of nonstraight-chain solid hydrocarbons and high-boiling liquid hydrocarbons in which most of the liquid hydrocarbons are held inside the micelles. Detailed historical account including chemistry and modern

manufacturing methods: Schindler, *Drug Cosmet. Ind.* **89**, 36-37, 76, 78-80, 82 (1961).

Yellowish to light anther or white. semisolid, unctuous mass; practically odorless and tasteless  $d_{25}$  0.820-0.865; mp 38-54°C;  $n_D$  1.460-1.474. White petrolatum is transparent in thin layers even at 0°C. Practically insoluble in water, glycerol, alcohol. Soluble in benzene, chloroform. ether, petroleum ether, carbon disulfide, oils.

USE: As ointment base in pharmaceuticals and cosmetics. Lubricating firearms and machinery, leather grease, shoe polish, rust preventives, modeling clays.”

substitute for petrolatum (see specif., pg 1, lines 22-23);

but having a destabilization point in the range from 52°C (125 °F) to 100°C (212°F) (see specif., pg 3, line 8);

In Claim 5,

to form a homogeneous colloidal solution (see specif., pg 2, line 24).

3. The office action states that the main difference between the instant application and the cited reference is that while applicant claims a gel to be used with an active ingredient, Deblasi et al have put the active ingredient into the gel already.

True as this is, the office action fails to recognize that the inclusion of the active ingredient must necessarily affect the properties of the end product. The office action provides no basis for leaving out the active ingredient for the purpose of making the “pasty wax alloy” Deblasi et al referred to at col 3, line 56.

The office action provides no motivation for one skilled in the art, reading the reference, deliberately to leave out the active ingredient. This is particularly true in this instance where, in each of the illustrative examples of the '945 reference, the active ingredient is used in a relatively large amount.

Still further, since in all instances, taking the teachings of the reference as a whole, those teachings teach that the end product is a solid, either in powder form as crystals, or as a "wax alloy dispersion" (see Example 6), though the end product is derived from a liquid.

The office action correctly places little emphasis upon the actual viscosity of the gel, it being sufficient that the claimed composition could also be a "waxy alloy paste" which the office action concludes is a gel. As stated in the specification, right at the outset, the claimed gel is a substitute for petrolatum without using an oil derived from petroleum and as formulated, like petrolatum, the gel is a colloid which is stable at room temperature but has the unexpected property of not being destabilized at 52°C, at which temperature petrolatum is completely liquid while the gel remains a gel (as stated in the specification), though softened relative to its hardness at room temperature (see the appended Declaration of Molly Yoong).

As shown in the appended Declaration of Ms. Molly Yoong, the claimed gel is stable at 52°C while petrolatum liquefies at that temperature, indicating it destabilized at a lower temperature. Such thermal stability is derived from the gel's composition.

The Declaration was not submitted earlier because applicant had no reason to believe that his sworn statement in his specification, that the gel had "high stability as evidenced by its destabilization point in the range from 52°C (125°F) to 100°C (212°F)" (see specif. pg 3, lines 7-8) as opposed to petrolatum which liquefies at 52°C, would not be given credence. Though this property is only one of the properties of the gel which distinguishes it over petrolatum, it is nevertheless important as it derives from the ratio of wax and oil specified in the claim.

It is evident from the specification, that the properties of the claimed gel are derived from wax and an oil in the stated relative proportions. Adding a significant

amount of another ingredient will necessarily have some effect on the physical properties of the gel, but the choice of adding that other ingredient, or not adding it, is up to the person using the gel.

The following are key considerations:

- (a) the claimed composition consists of only two ingredients: a wax (minor amount) and a natural vegetable oil (major amount) which have been together worked and manipulated to transform them into a substitute for petrolatum, the substitute having similar viscosity, stability, emolliency and occlusivity, but unlike petrolatum it is destabilized, that is, liquefied, at a higher destabilization point;
- (b) the claimed composition is solvent-free; and,
- (c) the claimed composition is present as a colloid in which the dispersed phase of waxy solid particles has combined with the continuous phase of vegetable oil to produce a semi-solid material substantially free of any solvent.

When Deblasi et al form a solution (single phase), their purpose is to provide a recrystallization process which produces crystals. As they state in their Abstract, "The recrystallization process of the present invention produces small particle size alloys from molten mixtures and recrystallized small particle size dispersions from high temperature solvent solutions."

No alloy is formed in the claimed gel.

Whatever a "solvent solution" may be (it is not defined in the Deblasi et al disclosure), it is not a colloidal solution.

Note that the term "solvent" is not used in its ordinary sense by Deblasi et al. but only in the particular context of their multicomponent system.

The ordinary dictionary meaning of the term solvent, in the context used herein, is given as follows:

Capable of dissolving another substance 1. *Chemistry*. **a.** The component of a solution that is present in excess or that undergoes no change of state. **b.** A liquid capable of

dissolving another substance. (see *The American Heritage Dictionary of the English Language*, William Morris, editor Houghton Mifflin Company, Boston).

Deblasi et al sought to make a solid composition having physical properties unrelated to those of petrolatum. They were well aware of petrolatum but they designated it a “solvent”, lumping it with other solvents.

They specifically identified petrolatum as a solvent, when they stated: “The *liquid solvent* is selected from among one or more of the following: glycerine, polydecene, hydrogenated polyisobutene, *jojoba oil*, propyleneglycolmonomethylether and *petrolatum-based fractionated solvents* such as mineral oil, *petrolatum*, liquid fractions of isoparaffin wax and Magie 47 (trade name for a product of the Magie Bros. division of Penzoil Corporation of Tulsa, Okla.). Other suitable solvents include *linseed oil*, butylcarbitol and the like. The preferred solvents are non-polar solvents including polydecene, hydrogenated polyisobutene, and either Magie 47 or another petroleum-based fractionalized solvent.” (see col 7, lines 12-22).

Note that they specify their “*petrolatum*” as being an example of a *petrolatum-based fractionated solvent*, specifying that the petrolatum they specifically identify is not the petrolatum which is a well-known, well-defined, commercially available product.

They use “red petrolatum” as an active ingredient (see ‘945, claim 5, *inter alia*).

Why would anyone skilled in the art, trying to make a substitute for petrolatum, reading and understanding the ‘945 disclosure taken as a whole, seek help in a disclosure which refers to using an unidentified liquid petrolatum, stated to be derived from common petrolatum, as a solvent?

To be sure, Deblasi et al disclose jojoba oil and linseed oil as solvents. Why then, would one skilled in the art consider taking these vegetable oils, clearly stated as being *solvents*, then use them so that they *do not function as solvents, but instead, form a colloidal solution with a wax*?

The office action fails to provide any reason one skilled in the art would, after reading and understanding the Deblasi et al disclosure, taken as a whole, find any motivation to make a substitute for petrolatum.

The office action fails to provide any reason one skilled in the art would, after reading and understanding the Deblasi et al disclosure, taken as a whole, find any motivation to ignore the manipulation of ingredients specified by them and decide on using the process claimed in this invention.

As stated in the amended claims, the claimed gel is also solvent-free, and has only two components, namely, a waxy solid and a vegetable oil which, only if formulated in the ratio stated (minor amount of waxy solid and major amount of vegetable oil), and processed as claimed, forms a gel which is a substitute for petrolatum.

The earlier office action (mailed 04/19/05) stated "While the reference does not cite the viscosity of the composition, since the ingredients and the concentrations are similar, the rheology is expected to be similar too." (see bottom of page 2).

It is agreed that the measured viscosity is not critical since it is stated that the gel has the physical properties of petrolatum. By definition, the viscosity of the gel is substantially the same as that of petrolatum, and nothing in the Deblasi et al disclosure suggests their composition has physical properties similar to that of petrolatum.

Though the foregoing is self-evident from applicant's specification, the appended Declaration of Molly Yoong, first duplicated the composition of Example 8 from the '945 disclosure to show what the end product was. It was "a very stiff, crumbly solid with the texture of peanutbutter with no oil".

She then duplicated the composition of Example 12 and made a hard solid despite the major proportion by weight of polydecene solvent. When she substituted liquid jojoba oil for the hydrogenated jojoba oil, she still made a soft solid.

With respect to claim 5, it clearly states that only two components are required to make the gel which is a homogeneous colloidal solution.

With respect to claim 8, it has been amended to be consistent with claim 5, and to make it clear that the unique physical properties of the gel are dependent upon generating the rheopectic mass which when cooled has physical properties similar to petrolatum.

In view of the evidence presented in the appended Declaration, the foregoing remarks, arguments, and amendments to the claims, it is respectfully submitted that the basis for the rejection has been overcome and that the amended claims are now in condition for allowance.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Alfred D. Lobo", written in a cursive style.

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